

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/37530

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H01L 23/48, 23/16, 21/58, 21/60; C08K 03/08 US CL : 257/777, 686; 437/209; 357/70; 252/511 According to International Patent Classification (IPC) or to both national classification and IPC																							
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 257/777, 686; 437/209; 357/70; 252/511 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched H01L 23/16, 23/48, 23/52, 21/58; C09J 163/63/00 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																							
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Category *</th> <th style="width: 60%;">Citation of document, with indication, where appropriate, of the relevant passages</th> <th style="width: 30%;">Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X --- A</td> <td>JP 2001-049220 A (NIPPON STEEL CHEM CO LTD) 20 February 2001 (20.02.2001), Abstract, Claims 1-5.</td> <td style="text-align: center;">50-51 ----- 1-31, 33-34, 45-49</td> </tr> <tr> <td style="text-align: center;">X --- Y</td> <td>JP 2000-239627 A (SUMITOMO BAKELITE CO LTD) 05 September 2000 (05.09.2000), Abstract, Para 0005.</td> <td style="text-align: center;">50-51 ----- 1-31, 33-34, 45-49</td> </tr> <tr> <td style="text-align: center;">X --- Y</td> <td>JP 2000-309768 A (KOREA ADV. INST. OF SCI. TECH), 07 November 2000 (07.11.2000), Abstract, Claims 1, 3, 5.</td> <td style="text-align: center;">50-51 ----- 1-31, 33-34, 45-49</td> </tr> <tr> <td style="text-align: center;">Y</td> <td>US 6,224,690 B1 (ANDRICACOS et al) 01 May 2001 (01.05.2001), Column-6, Table-1.</td> <td style="text-align: center;">5-6, 8-9, 11-12, 14-15, 17-18, 21-22,</td> </tr> <tr> <td style="text-align: center;">Y</td> <td>US 6,465,893 B1 (KHANDROS et al) 15 October 2002, (15.10.2002), Abstract, Fig-14,</td> <td style="text-align: center;">1-31, 33-34, 45-49</td> </tr> <tr> <td style="text-align: center;">Y</td> <td>US 5,323,060 A (FOGAL et al) 21 June 1994 (21.06.1994), Abstract, Fig-1, Column-1, Lines 1-66.</td> <td style="text-align: center;">1-31, 33-34, 45-49</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- A	JP 2001-049220 A (NIPPON STEEL CHEM CO LTD) 20 February 2001 (20.02.2001), Abstract, Claims 1-5.	50-51 ----- 1-31, 33-34, 45-49	X --- Y	JP 2000-239627 A (SUMITOMO BAKELITE CO LTD) 05 September 2000 (05.09.2000), Abstract, Para 0005.	50-51 ----- 1-31, 33-34, 45-49	X --- Y	JP 2000-309768 A (KOREA ADV. INST. OF SCI. TECH), 07 November 2000 (07.11.2000), Abstract, Claims 1, 3, 5.	50-51 ----- 1-31, 33-34, 45-49	Y	US 6,224,690 B1 (ANDRICACOS et al) 01 May 2001 (01.05.2001), Column-6, Table-1.	5-6, 8-9, 11-12, 14-15, 17-18, 21-22,	Y	US 6,465,893 B1 (KHANDROS et al) 15 October 2002, (15.10.2002), Abstract, Fig-14,	1-31, 33-34, 45-49	Y	US 5,323,060 A (FOGAL et al) 21 June 1994 (21.06.1994), Abstract, Fig-1, Column-1, Lines 1-66.	1-31, 33-34, 45-49
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<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Further documents are listed in the continuation of Box C. </div> <div> <input type="checkbox"/> See patent family annex. </div> </div>																							
<table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td style="width: 50%; vertical-align: top;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p> </td> </tr> </table>			<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>																			
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Date of the actual completion of the international search 01 April 2005 (01.04.2005)		Date of mailing of the international search report <div style="font-size: 1.2em; font-weight: bold;">14 APR 2005</div>																					
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Dr. Yogendra Gupta Telephone No. 572-272-1700																					

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